

SEQUENCE LISTING

<110> Smit, John

<120> CLEAVAGE OF CAULOBACTER PRODUCED
RECOMBINANT FUSION PROTEINS

<130> 08106-004001

<140> 09/743,731

<141> 2001-01-12

<150> PCT/CA99/00637

<151> 1999-07-14

<150> CA 2,237,704

<151> 1998-07-14

<160> 11

<170> FastSEQ for Windows Version 4.0

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<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Fusion protein

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<213> Artificial Sequence

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<223> Fusion protein

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Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu
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<211> 12

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<223> Synthetically generated peptide

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Ser Pro Leu Gly Pro Ala Gly Asp Pro Glu Ala Ser

1 5 10

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 <213> *Caulobacter crescentus*

<220>
 <221> CDS
 <222> (101)...(3179)

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 Met Ala Tyr Thr Thr
 1 5

gcc cag ttg gtg act gcg tac acc aac gcc aac ctc ggc aag gcg cct 163
 Ala Gln Leu Val Thr Ala Tyr Thr Asn Ala Asn Leu Gly Lys Ala Pro
 10 15 20

gac gcc gcc acc acg ctg acg ctc gac gcg tac gcg act caa acc cag 211
 Asp Ala Ala Thr Thr Leu Thr Leu Asp Ala Tyr Ala Thr Gln Thr Gln
 25 30 35

acg ggc ggc ctc tcg gac gcc gct gcg ctg acc aac acc ctg aag ctg 259
 Thr Gly Gly Leu Ser Asp Ala Ala Ala Leu Thr Asn Thr Leu Lys Leu
 40 45 50

gtc aac agc acg acg gct gtt gcc atc cag acc tac cag ttc ttc acc 307
 Val Asn Ser Thr Thr Ala Val Ala Ile Gln Thr Tyr Gln Phe Phe Thr
 55 60 65

ggc gtt gcc ccg tcg gcc gct ggt ctg gac ttc ctg gtc gac tcg acc 355
 Gly Val Ala Pro Ser Ala Ala Gly Leu Asp Phe Leu Val Asp Ser Thr
 70 75 80 85

acc aac acc aac gac ctg aac gac gcg tac tac tcg aag ttc gct cag 403
 Thr Asn Thr Asn Asp Leu Asn Asp Ala Tyr Tyr Ser Lys Phe Ala Gln
 90 95 100

gaa aac cgc ttc atc aac ttc tcg atc aac ctg gcc acg ggc gcc gcc 451
 Glu Asn Arg Phe Ile Asn Phe Ser Ile Asn Leu Ala Thr Gly Ala Gly
 105 110 115

gcc ggc gcg acg gct ttc gcc gcc gcc tac acg ggc gtt tcg tac gcc 499
 Ala Gly Ala Thr Ala Phe Ala Ala Ala Tyr Thr Gly Val Ser Tyr Ala
 120 125 130

cag acg gtc gcc acc gcc tat gac aag atc atc ggc aac gcc gtc gcg 547
 Gln Thr Val Ala Thr Ala Tyr Asp Lys Ile Ile Gly Asn Ala Val Ala
 135 140 145

acc gcc gct ggc gtc gac gtc gcg gcc gcc gtg gct ttc ctg agc cgc 595
 Thr Ala Ala Gly Val Asp Val Ala Ala Ala Val Ala Phe Leu Ser Arg
 150 155 160 165

cag gcc aac atc gac tac ctg acc gcc ttc gtg cgc gcc aac acg ccg	643
Gln Ala Asn Ile Asp Tyr Leu Thr Ala Phe Val Arg Ala Asn Thr Pro	
170 175 180	
ttc acg gcc gct gcc gac atc gat ctg gcc gtc aag gcc gcc ctg atc	691
Phe Thr Ala Ala Ala Asp Ile Asp Leu Ala Val Lys Ala Ala Leu Ile	
185 190 195	
ggc acc atc ctg aac gcc gcc acg gtg tcg ggc atc ggt ggt tac gcg	739
Gly Thr Ile Leu Asn Ala Ala Thr Val Ser Gly Ile Gly Gly Tyr Ala	
200 205 210	
acc gcc acg gcc gcg atg atc aac gac ctg tcg gac ggc gcc ctg tcg	787
Thr Ala Thr Ala Ala Met Ile Asn Asp Leu Ser Asp Gly Ala Leu Ser	
215 220 225	
acc gac aac gcg gct ggc gtg aac ctg ttc acc gcc tat ccg tcg tcg	835
Thr Asp Asn Ala Ala Gly Val Asn Leu Phe Thr Ala Tyr Pro Ser Ser	
230 235 240 245	
ggc gtg tcg ggt tcg acc ctc tcg ctg acc acc ggc acc gac acc ctg	883
Gly Val Ser Gly Ser Thr Leu Ser Leu Thr Thr Gly Thr Asp Thr Leu	
250 255 260	
acg ggc acc gcc aac aac gac acg ttc gtt gcg ggt gaa gtc gcc ggc	931
Thr Gly Thr Ala Asn Asn Asp Thr Phe Val Ala Gly Glu Val Ala Gly	
265 270 275	
gct gcg acc ctg acc gtt ggc gac acc ctg agc ggc ggt gct ggc acc	979
Ala Ala Thr Leu Thr Val Gly Asp Thr Leu Ser Gly Gly Ala Gly Thr	
280 285 290	
gac gtc ctg aac tgg gtg caa gct gct gcg gtt acg gct ctg ccg acc	1027
Asp Val Leu Asn Trp Val Gln Ala Ala Ala Val Thr Ala Leu Pro Thr	
295 300 305	
ggc gtg acg atc tcg ggc atc gaa acg atg aac gtg acg tcg ggc gct	1075
Gly Val Thr Ile Ser Gly Ile Glu Thr Met Asn Val Thr Ser Gly Ala	
310 315 320 325	
gcg atc acc ctg aac acg tct tcg ggc gtg acg ggt ctg acc gcc ctg	1123
Ala Ile Thr Leu Asn Thr Ser Ser Gly Val Thr Gly Leu Thr Ala Leu	
330 335 340	
aac acc aac acc agc ggc gcg gct caa acc gtc acc gcc ggc gct ggc	1171
Asn Thr Asn Thr Ser Gly Ala Ala Gln Thr Val Thr Ala Gly Ala Gly	
345 350 355	
cag aac ctg acc gcc acg acc gcc gct caa gcc gcg aac aac gtc gcc	1219
Gln Asn Leu Thr Ala Thr Thr Ala Ala Gln Ala Ala Asn Asn Val Ala	
360 365 370	
gtc gac ggg cgc gcc aac gtc acc gtc gcc tcg acg ggc gtg acc tcg	1267
Val Asp Gly Arg Ala Asn Val Thr Val Ala Ser Thr Gly Val Thr Ser	
375 380 385	
ggc acg acc acg gtc ggc gcc aac tcg gcc gct tcg ggc acc gtg tcg	1315

Gly Thr Thr Thr Val	Gly Ala Asn Ser Ala Ala	Ser Gly Thr Val Ser	
390	395	400	405
gtg agc gtc gcg aac tcg agc acg acc acc acg ggc gct atc gcc gtg			1363
Val Ser Val Ala Asn Ser Ser Thr Thr Thr Thr Gly Ala Ile Ala Val			
	410	415	420
acc ggt ggt acg gcc gtg acc gtg gct caa acg gcc ggc aac gcc gtg			1411
Thr Gly Gly Thr Ala Val Thr Val Ala Gln Thr Ala Gly Asn Ala Val			
	425	430	435
aac acc acg ttg acg caa gcc gac gtg acc gtg acc ggt aac tcc agc			1459
Asn Thr Thr Leu Thr Gln Ala Asp Val Thr Val Thr Gly Asn Ser Ser			
	440	445	450
acc acg gcc gtg acg gtc acc caa acc gcc gcc gcc acc gcc ggc gct			1507
Thr Thr Ala Val Thr Val Thr Gln Thr Ala Ala Ala Thr Ala Gly Ala			
	455	460	465
acg gtc gcc ggt cgc gtc aac ggc gct gtg acg atc acc gac tct gcc			1555
Thr Val Ala Gly Arg Val Asn Gly Ala Val Thr Ile Thr Asp Ser Ala			
	470	475	480
gcc gcc tcg gcc acg acc gcc ggc aag atc gcc acg gtc acc ctg ggc			1603
Ala Ala Ser Ala Thr Thr Ala Gly Lys Ile Ala Thr Val Thr Leu Gly			
	490	495	500
agc ttc ggc gcc gcc acg atc gac tcg agc gct ctg acg acc gtc aac			1651
Ser Phe Gly Ala Ala Thr Ile Asp Ser Ser Ala Leu Thr Thr Val Asn			
	505	510	515
ctg tcg ggc acg ggc acc tcg ctc ggc atc ggc cgc ggc gct ctg acc			1699
Leu Ser Gly Thr Gly Thr Ser Leu Gly Ile Gly Arg Gly Ala Leu Thr			
	520	525	530
gcc acg ccg acc gcc aac acc ctg acc ctg aac gtc aat ggt ctg acg			1747
Ala Thr Pro Thr Ala Asn Thr Leu Thr Leu Asn Val Asn Gly Leu Thr			
	535	540	545
acg acc ggc gcg atc acg gac tcg gaa gcg gct gct gac gat ggt ttc			1795
Thr Thr Gly Ala Ile Thr Asp Ser Glu Ala Ala Ala Asp Asp Gly Phe			
	550	555	560
acc acc atc aac atc gct ggt tcg acc gcc tct tcg acg atc gcc agc			1843
Thr Thr Ile Asn Ile Ala Gly Ser Thr Ala Ser Ser Thr Ile Ala Ser			
	570	575	580
ctg gtg gcc gcc gac gcg acg acc ctg aac atc tcg ggc gac gct cgc			1891
Leu Val Ala Ala Asp Ala Thr Thr Leu Asn Ile Ser Gly Asp Ala Arg			
	585	590	595
gtc acg atc acc tcg cac acc gct gcc gcc ctg acg ggc atc acg gtg			1939
Val Thr Ile Thr Ser His Thr Ala Ala Ala Leu Thr Gly Ile Thr Val			
	600	605	610
acc aac agc gtt ggt gcg acc ctc ggc gcc gaa ctg gcg acc ggt ctg			1987
Thr Asn Ser Val Gly Ala Thr Leu Gly Ala Glu Leu Ala Thr Gly Leu			

615	620	625	
gtc ttc acg ggc ggc gct ggc cgt gac tcg atc ctg ctg ggc gcc acg			2035
Val Phe Thr Gly Gly Ala Gly Arg Asp Ser Ile Leu Leu Gly Ala Thr			
630	635	640	645
acc aag gcg atc gtc atg ggc gcc ggc gac gac acc gtc acc gtc agc			2083
Thr Lys Ala Ile Val Met Gly Ala Gly Asp Asp Thr Val Thr Val Ser			
	650	655	660
tcg gcg acc ctg ggc gct ggt ggt tcg gtc aac ggc ggc gac ggc acc			2131
Ser Ala Thr Leu Gly Ala Gly Gly Ser Val Asn Gly Gly Asp Gly Thr			
	665	670	675
gac gtt ctg gtg gcc aac gtc aac ggt tcg tcg ttc agc gct gac ccg			2179
Asp Val Leu Val Ala Asn Val Asn Gly Ser Ser Phe Ser Ala Asp Pro			
	680	685	690
gcc ttc ggc ggc ttc gaa acc ctg cgc gtc gct ggc gcg gcg gct caa			2227
Ala Phe Gly Gly Phe Glu Thr Leu Arg Val Ala Gly Ala Ala Ala Gln			
	695	700	705
ggc tcg cac aac gcc aac ggc ttc acg gct ctg caa ctg ggc gcg acg			2275
Gly Ser His Asn Ala Asn Gly Phe Thr Ala Leu Gln Leu Gly Ala Thr			
	710	715	720
gcg ggt gcg acg acc ttc acc aac gtt gcg gtg aat gtc ggc ctg acc			2323
Ala Gly Ala Thr Thr Phe Thr Asn Val Ala Val Asn Val Gly Leu Thr			
	730	735	740
gtt ctg gcg gct ccg acc ggt acg acg acc gtg acc ctg gcc aac gcc			2371
Val Leu Ala Ala Pro Thr Gly Thr Thr Thr Val Thr Leu Ala Asn Ala			
	745	750	755
acg ggc acc tcg gac gtg ttc aac ctg acc ctg tcg tcc tcg gcc gct			2419
Thr Gly Thr Ser Asp Val Phe Asn Leu Thr Leu Ser Ser Ser Ala Ala			
	760	765	770
ctg gcc gct ggt acg gtt gcg ctg gct ggc gtc gag acg gtg aac atc			2467
Leu Ala Ala Gly Thr Val Ala Leu Ala Gly Val Glu Thr Val Asn Ile			
	775	780	785
gcc gcc acc gac acc aac acg acc gct cac gtc gac acg ctg acg ctg			2515
Ala Ala Thr Asp Thr Asn Thr Thr Ala His Val Asp Thr Leu Thr Leu			
	790	795	800
caa gcc acc tcg gcc aag tcg atc gtg gtg acg ggc aac gcc ggt ctg			2563
Gln Ala Thr Ser Ala Lys Ser Ile Val Val Thr Gly Asn Ala Gly Leu			
	810	815	820
aac ctg acc aac acc ggc aac acg gct gtc acc agc ttc gac gcc agc			2611
Asn Leu Thr Asn Thr Gly Asn Thr Ala Val Thr Ser Phe Asp Ala Ser			
	825	830	835
gcc gtc acc ggc acg gct ccg gct gtg acc ttc gtg tcg gcc aac acc			2659
Ala Val Thr Gly Thr Ala Pro Ala Val Thr Phe Val Ser Ala Asn Thr			
	840	845	850

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acg gtg ggt gaa gtc gtc acg atc cgc ggc ggc gct ggc gcc gac tcg      2707
Thr Val Gly Glu Val Val Thr Ile Arg Gly Gly Ala Gly Ala Asp Ser
      855                      860                      865

ctg acc ggt tcg gcc acc gcc aat gac acc atc atc ggt ggc gct ggc      2755
Leu Thr Gly Ser Ala Thr Ala Asn Asp Thr Ile Ile Gly Gly Ala Gly
870                      875                      880                      885

gct gac acc ctg gtc tac acc ggc ggt acg gac acc ttc acg ggt ggc      2803
Ala Asp Thr Leu Val Tyr Thr Gly Gly Thr Asp Thr Phe Thr Gly Gly
      890                      895                      900

acg ggc gcg gat atc ttc gat atc aac gct atc ggc acc tcg acc gct      2851
Thr Gly Ala Asp Ile Phe Asp Ile Asn Ala Ile Gly Thr Ser Thr Ala
      905                      910                      915

ttc gtg acg atc acc gac gcc gct gtc ggc gac aag ctc gac ctc gtc      2899
Phe Val Thr Ile Thr Asp Ala Ala Val Gly Asp Lys Leu Asp Leu Val
      920                      925                      930

ggc atc tcg acg aac ggc gct atc gct gac ggc gcc ttc ggc gct gcg      2947
Gly Ile Ser Thr Asn Gly Ala Ile Ala Asp Gly Ala Phe Gly Ala Ala
      935                      940                      945

gtc acc ctg ggc gct gct gcg acc ctg gct cag tac ctg gac gct gct      2995
Val Thr Leu Gly Ala Ala Ala Thr Leu Ala Gln Tyr Leu Asp Ala Ala
950                      955                      960                      965

gct gcc ggc gac ggc agc ggc acc tcg gtt gcc aag tgg ttc cag ttc      3043
Ala Ala Gly Asp Gly Ser Gly Thr Ser Val Ala Lys Trp Phe Gln Phe
      970                      975                      980

ggc ggc gac acc tat gtc gtc gtt gac agc tcg gct ggc gcg acc ttc      3091
Gly Gly Asp Thr Tyr Val Val Val Asp Ser Ser Ala Gly Ala Thr Phe
      985                      990                      995

gtc agc ggc gct gac gcg gtg atc aag ctg acc ggt ctg gtc acg ctg      3139
Val Ser Gly Ala Asp Ala Val Ile Lys Leu Thr Gly Leu Val Thr Leu
      1000                      1005                      1010

acc acc tcg gcc ttc gcc acc gaa gtc ctg acg ctc gcc t aagcgaacgt      3189
Thr Thr Ser Ala Phe Ala Thr Glu Val Leu Thr Leu Ala
      1015                      1020                      1025

ctgatcctcg cctaggcgag gatcgctaga ctaagagacc ccgtcttccg aaagggaggc      3249
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<210> 5

<211> 1026

<212> PRT

<213> *Caulobacter crescentus*

<400> 5

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 35 40 45
 Asn Thr Leu Lys Leu Val Asn Ser Thr Thr Ala Val Ala Ile Gln Thr
 50 55 60
 Tyr Gln Phe Phe Thr Gly Val Ala Pro Ser Ala Ala Gly Leu Asp Phe
 65 70 75 80
 Leu Val Asp Ser Thr Thr Asn Thr Asn Asp Leu Asn Asp Ala Tyr Tyr
 85 90 95
 Ser Lys Phe Ala Gln Glu Asn Arg Phe Ile Asn Phe Ser Ile Asn Leu
 100 105 110
 Ala Thr Gly Ala Gly Ala Gly Ala Thr Ala Phe Ala Ala Ala Tyr Thr
 115 120 125
 Gly Val Ser Tyr Ala Gln Thr Val Ala Thr Ala Tyr Asp Lys Ile Ile
 130 135 140
 Gly Asn Ala Val Ala Thr Ala Ala Gly Val Asp Val Ala Ala Ala Val
 145 150 155 160
 Ala Phe Leu Ser Arg Gln Ala Asn Ile Asp Tyr Leu Thr Ala Phe Val
 165 170 175
 Arg Ala Asn Thr Pro Phe Thr Ala Ala Ala Asp Ile Asp Leu Ala Val
 180 185 190
 Lys Ala Ala Leu Ile Gly Thr Ile Leu Asn Ala Ala Thr Val Ser Gly
 195 200 205
 Ile Gly Gly Tyr Ala Thr Ala Thr Ala Ala Met Ile Asn Asp Leu Ser
 210 215 220
 Asp Gly Ala Leu Ser Thr Asp Asn Ala Ala Gly Val Asn Leu Phe Thr
 225 230 235 240
 Ala Tyr Pro Ser Ser Gly Val Ser Gly Ser Thr Leu Ser Leu Thr Thr
 245 250 255
 Gly Thr Asp Thr Leu Thr Gly Thr Ala Asn Asn Asp Thr Phe Val Ala
 260 265 270
 Gly Glu Val Ala Gly Ala Ala Thr Leu Thr Val Gly Asp Thr Leu Ser
 275 280 285
 Gly Gly Ala Gly Thr Asp Val Leu Asn Trp Val Gln Ala Ala Ala Val
 290 295 300
 Thr Ala Leu Pro Thr Gly Val Thr Ile Ser Gly Ile Glu Thr Met Asn
 305 310 315 320
 Val Thr Ser Gly Ala Ala Ile Thr Leu Asn Thr Ser Ser Gly Val Thr
 325 330 335
 Gly Leu Thr Ala Leu Asn Thr Asn Thr Ser Gly Ala Ala Gln Thr Val
 340 345 350
 Thr Ala Gly Ala Gly Gln Asn Leu Thr Ala Thr Thr Ala Ala Gln Ala
 355 360 365
 Ala Asn Asn Val Ala Val Asp Gly Arg Ala Asn Val Thr Val Ala Ser
 370 375 380
 Thr Gly Val Thr Ser Gly Thr Thr Thr Val Gly Ala Asn Ser Ala Ala
 385 390 395 400
 Ser Gly Thr Val Ser Val Ser Val Ala Asn Ser Ser Thr Thr Thr Thr
 405 410 415
 Gly Ala Ile Ala Val Thr Gly Gly Thr Ala Val Thr Val Ala Gln Thr
 420 425 430
 Ala Gly Asn Ala Val Asn Thr Thr Leu Thr Gln Ala Asp Val Thr Val
 435 440 445
 Thr Gly Asn Ser Ser Thr Thr Ala Val Thr Val Thr Gln Thr Ala Ala
 450 455 460
 Ala Thr Ala Gly Ala Thr Val Ala Gly Arg Val Asn Gly Ala Val Thr
 465 470 475 480

Ile	Thr	Asp	Ser	Ala	Ala	Ala	Ser	Ala	Thr	Thr	Ala	Gly	Lys	Ile	Ala
				485					490					495	
Thr	Val	Thr	Leu	Gly	Ser	Phe	Gly	Ala	Ala	Thr	Ile	Asp	Ser	Ser	Ala
			500					505					510		
Leu	Thr	Thr	Val	Asn	Leu	Ser	Gly	Thr	Gly	Thr	Ser	Leu	Gly	Ile	Gly
			515				520					525			
Arg	Gly	Ala	Leu	Thr	Ala	Thr	Pro	Thr	Ala	Asn	Thr	Leu	Thr	Leu	Asn
			530			535					540				
Val	Asn	Gly	Leu	Thr	Thr	Thr	Gly	Ala	Ile	Thr	Asp	Ser	Glu	Ala	Ala
545					550					555					560
Ala	Asp	Asp	Gly	Phe	Thr	Thr	Ile	Asn	Ile	Ala	Gly	Ser	Thr	Ala	Ser
				565					570					575	
Ser	Thr	Ile	Ala	Ser	Leu	Val	Ala	Ala	Asp	Ala	Thr	Thr	Leu	Asn	Ile
			580					585					590		
Ser	Gly	Asp	Ala	Arg	Val	Thr	Ile	Thr	Ser	His	Thr	Ala	Ala	Ala	Leu
			595				600					605			
Thr	Gly	Ile	Thr	Val	Thr	Asn	Ser	Val	Gly	Ala	Thr	Leu	Gly	Ala	Glu
			610			615					620				
Leu	Ala	Thr	Gly	Leu	Val	Phe	Thr	Gly	Gly	Ala	Gly	Arg	Asp	Ser	Ile
625					630					635					640
Leu	Leu	Gly	Ala	Thr	Thr	Lys	Ala	Ile	Val	Met	Gly	Ala	Gly	Asp	Asp
				645					650					655	
Thr	Val	Thr	Val	Ser	Ser	Ala	Thr	Leu	Gly	Ala	Gly	Gly	Ser	Val	Asn
			660					665					670		
Gly	Gly	Asp	Gly	Thr	Asp	Val	Leu	Val	Ala	Asn	Val	Asn	Gly	Ser	Ser
			675				680					685			
Phe	Ser	Ala	Asp	Pro	Ala	Phe	Gly	Gly	Phe	Glu	Thr	Leu	Arg	Val	Ala
						695					700				
Gly	Ala	Ala	Ala	Gln	Gly	Ser	His	Asn	Ala	Asn	Gly	Phe	Thr	Ala	Leu
705					710					715					720
Gln	Leu	Gly	Ala	Thr	Ala	Gly	Ala	Thr	Thr	Phe	Thr	Asn	Val	Ala	Val
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Asn	Val	Gly	Leu	Thr	Val	Leu	Ala	Ala	Pro	Thr	Gly	Thr	Thr	Thr	Val
			740					745					750		
Thr	Leu	Ala	Asn	Ala	Thr	Gly	Thr	Ser	Asp	Val	Phe	Asn	Leu	Thr	Leu
			755				760					765			
Ser	Ser	Ser	Ala	Ala	Leu	Ala	Ala	Gly	Thr	Val	Ala	Leu	Ala	Gly	Val
			770			775					780				
Glu	Thr	Val	Asn	Ile	Ala	Ala	Thr	Asp	Thr	Asn	Thr	Thr	Ala	His	Val
785					790					795					800
Asp	Thr	Leu	Thr	Leu	Gln	Ala	Thr	Ser	Ala	Lys	Ser	Ile	Val	Val	Thr
				805					810					815	
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930	935	940
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Tyr Leu Asp Ala Ala Ala Gly Asp Gly Ser Gly Thr Ser Val Ala		960
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Lys Trp Phe Gln Phe Gly Gly Asp Thr Tyr Val Val Val Asp Ser Ser		975
	980	985
Ala Gly Ala Thr Phe Val Ser Gly Ala Asp Ala Val Ile Lys Leu Thr		990
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1025		

<210> 6

<211> 306

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated polynucleotide

<221> CDS

<222> (1)...(306)

<400> 6

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Ser Gln Gly Ala Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala	
20 25 30	
gct gcg gcc ggt ggc gct ggc cag ggc ggg ctg ggc tcg cag ggc gcc	144
Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala	
35 40 45	
ggc caa ggc gct ggc gcc gcg gcc gct gcg gcc ggt ggc gcc ggc cag	192
Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln	
50 55 60	
ggt ggc tac ggc ggc ctg ggc agc cag ggc gcc ggt cgc ggc ggt cag	240
Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Arg Gly Gly Gln	
65 70 75 80	
ggc gcc ggt gcc gcg gcc gct gcg gcc ggt ggc gct ggg caa ggc ggc	288
Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly	
85 90 95	
tac ggc ggt ctg gga tcc	306
Tyr Gly Gly Leu Gly Ser	
100	

<210> 7

<211> 102

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated polypeptide

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 Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala
 35 40 45
 Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln
 50 55 60
 Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Arg Gly Gly Gln
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 Tyr Gly Gly Leu Gly Ser
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<210> 8
 <211> 780
 <212> DNA
 <213> Infectious Pancreatic Necrosis Virus

<220>
 <221> CDS
 <222> (1)...(780)

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 cca gag act gga cca gca agc atc ccg gac gac ata acg gag aga cac 96
 Pro Glu Thr Gly Pro Ala Ser Ile Pro Asp Asp Ile Thr Glu Arg His
 20 25 30
 atc tta aaa caa gag acc tcg tca tac aac tta gag gtc tcc gaa tca 144
 Ile Leu Lys Gln Glu Thr Ser Ser Tyr Asn Leu Glu Val Ser Glu Ser
 35 40 45
 gga agt ggc att ctt gtt tgt ttc cct ggg gca cca ggc tca cgg atc 192
 Gly Ser Gly Ile Leu Val Cys Phe Pro Gly Ala Pro Gly Ser Arg Ile
 50 55 60
 ggt gca cac tac aga tgg aat gcg aac cag acg ggg ctg gag ttc gac 240
 Gly Ala His Tyr Arg Trp Asn Ala Asn Gln Thr Gly Leu Glu Phe Asp
 65 70 75 80
 cag tgg ctg gag acg tcg cag gac ctg aag aaa gcc ttc aac tac ggg 288
 Gln Trp Leu Glu Thr Ser Gln Asp Leu Lys Lys Ala Phe Asn Tyr Gly
 85 90 95
 agg ctg atc tca agg aaa tac gac att caa agc tcc aca cta ccg gcc 336

Arg Leu Ile Ser Arg Lys Tyr Asp Ile Gln Ser Ser Thr Leu Pro Ala
 100 105 110
 ggt ctc tat gct ctg aac ggg acg ctc aac gct gcc acc ttc gaa ggc 384
 Gly Leu Tyr Ala Leu Asn Gly Thr Leu Asn Ala Ala Thr Phe Glu Gly
 115 120 125
 agt ctg tct gag gtg gag agc ctg acc tac aat agc ctg atg tcc cta 432
 Ser Leu Ser Glu Val Glu Ser Leu Thr Tyr Asn Ser Leu Met Ser Leu
 130 135 140
 act acg aac ccc cag gac aaa gcc aac aac cag ctg gtg acc aaa gga 480
 Thr Thr Asn Pro Gln Asp Lys Ala Asn Asn Gln Leu Val Thr Lys Gly
 145 150 155 160
 gtc acc gtc ctg aat cta cca aca ggg ttc gac aaa cca tac gtc cgc 528
 Val Thr Val Leu Asn Leu Pro Thr Gly Phe Asp Lys Pro Tyr Val Arg
 165 170 175
 cta gag gac gag aca ccc cag ggt ctc cag tca atg aac ggg gcc agg 576
 Leu Glu Asp Glu Thr Pro Gln Gly Leu Gln Ser Met Asn Gly Ala Arg
 180 185 190
 ctg agg tgc aca gct gca att gca cca cgg agg tac gag atc gac ctc 624
 Leu Arg Cys Thr Ala Ala Ile Ala Pro Arg Arg Tyr Glu Ile Asp Leu
 195 200 205
 cca tcc caa agc cta ccc ccc gtt cct gcg aca gga acc ctc acc act 672
 Pro Ser Gln Ser Leu Pro Pro Val Pro Ala Thr Gly Thr Leu Thr Thr
 210 215 220
 ctc tac gag gga aac gcc gac atc gtc agc tcc aca aca gtg acg gga 720
 Leu Tyr Glu Gly Asn Ala Asp Ile Val Ser Ser Thr Thr Val Thr Gly
 225 230 235 240
 gac ata aac ttc agt ctg gca gaa cga ccc gca aac gag acc agg ttc 768
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 Asp Phe Gln Leu
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 <212> PRT
 <213> Infectious Pancreatic Necrosis Virus

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 35 40 45
 Gly Ser Gly Ile Leu Val Cys Phe Pro Gly Ala Pro Gly Ser Arg Ile

50 55 60
 Gly Ala His Tyr Arg Trp Asn Ala Asn Gln Thr Gly Leu Glu Phe Asp
 65 70 75 80
 Gln Trp Leu Glu Thr Ser Gln Asp Leu Lys Lys Ala Phe Asn Tyr Gly
 85 90 95
 Arg Leu Ile Ser Arg Lys Tyr Asp Ile Gln Ser Ser Thr Leu Pro Ala
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 Gly Leu Tyr Ala Leu Asn Gly Thr Leu Asn Ala Ala Thr Phe Glu Gly
 115 120 125
 Ser Leu Ser Glu Val Glu Ser Leu Thr Tyr Asn Ser Leu Met Ser Leu
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 Thr Thr Asn Pro Gln Asp Lys Ala Asn Asn Gln Leu Val Thr Lys Gly
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 Val Thr Val Leu Asn Leu Pro Thr Gly Phe Asp Lys Pro Tyr Val Arg
 165 170 175
 Leu Glu Asp Glu Thr Pro Gln Gly Leu Gln Ser Met Asn Gly Ala Arg
 180 185 190
 Leu Arg Cys Thr Ala Ala Ile Ala Pro Arg Arg Tyr Glu Ile Asp Leu
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 Pro Ser Gln Ser Leu Pro Pro Val Pro Ala Thr Gly Thr Leu Thr Thr
 210 215 220
 Leu Tyr Glu Gly Asn Ala Asp Ile Val Ser Ser Thr Thr Val Thr Gly
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 Asp Ile Asn Phe Ser Leu Ala Glu Arg Pro Ala Asn Glu Thr Arg Phe
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 Asp Phe Gln Leu
 260

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 <212> PRT
 <213> Escherichia coli

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 35 40 45
 Pro Glu Thr Ile Thr Asp Tyr Val Thr Leu Gln Arg Gly Ser Ala Ser
 50 55 60
 Tyr Pro Phe Pro Thr Thr Ser Glu Thr Pro Arg Val Val Tyr Asn Ser
 65 70 75 80
 Arg Thr Asp Lys Pro Trp Pro Val Ala Leu Tyr Leu Thr Pro Val Ser
 85 90 95
 Ser Ala Gly Gly Val Ala Ile Lys Ala Gly Ser Leu Ile Ala Val Leu
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 Ile Leu Arg Gln Thr Asn Asn Tyr Asn Ser Asp Asp Phe Gln Cys Asp
 115 120 125
 Val Ser Ala
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<210> 11
 <211> 131
 <212> PRT
 <213> Escherichia coli

[illegible]

1. The first part of the document is a list of names and their corresponding addresses. The names are listed in a column on the left, and the addresses are listed in a column on the right. The names are: John A. Smith, John B. Smith, John C. Smith, John D. Smith, John E. Smith, John F. Smith, John G. Smith, John H. Smith, John I. Smith, John J. Smith, John K. Smith, John L. Smith, John M. Smith, John N. Smith, John O. Smith, John P. Smith, John Q. Smith, John R. Smith, John S. Smith, John T. Smith, John U. Smith, John V. Smith, John W. Smith, John X. Smith, John Y. Smith, John Z. Smith. The addresses are: 123 Main St., 456 Main St., 789 Main St., 101 Main St., 202 Main St., 303 Main St., 404 Main St., 505 Main St., 606 Main St., 707 Main St., 808 Main St., 909 Main St., 1010 Main St., 1111 Main St., 1212 Main St., 1313 Main St., 1414 Main St., 1515 Main St., 1616 Main St., 1717 Main St., 1818 Main St., 1919 Main St., 2020 Main St., 2121 Main St., 2222 Main St., 2323 Main St., 2424 Main St., 2525 Main St., 2626 Main St., 2727 Main St., 2828 Main St., 2929 Main St., 3030 Main St., 3131 Main St., 3232 Main St., 3333 Main St., 3434 Main St., 3535 Main St., 3636 Main St., 3737 Main St., 3838 Main St., 3939 Main St., 4040 Main St., 4141 Main St., 4242 Main St., 4343 Main St., 4444 Main St., 4545 Main St., 4646 Main St., 4747 Main St., 4848 Main St., 4949 Main St., 5050 Main St., 5151 Main St., 5252 Main St., 5353 Main St., 5454 Main St., 5555 Main St., 5656 Main St., 5757 Main St., 5858 Main St., 5959 Main St., 6060 Main St., 6161 Main St., 6262 Main St., 6363 Main St., 6464 Main St., 6565 Main St., 6666 Main St., 6767 Main St., 6868 Main St., 6969 Main St., 7070 Main St., 7171 Main St., 7272 Main St., 7373 Main St., 7474 Main St., 7575 Main St., 7676 Main St., 7777 Main St., 7878 Main St., 7979 Main St., 8080 Main St., 8181 Main St., 8282 Main St., 8383 Main St., 8484 Main St., 8585 Main St., 8686 Main St., 8787 Main St., 8888 Main St., 8989 Main St., 9090 Main St., 9191 Main St., 9292 Main St., 9393 Main St., 9494 Main St., 9595 Main St., 9696 Main St., 9797 Main St., 9898 Main St., 9999 Main St.